

EXHIBIT 64

APPENDIX M - Command Abstractions Listed by Earliest Cisco Document Date

*	Cisco Command Expression in Prof. Almeroth's Exhibit Copying-2	Cisco Command Expression in 8th Supplemental Exhibit F to Cisco's Interrogatory Responses	Date of Earliest Known Document (Exh. F to Cisco's Discovery Responses)
1.	205. isis passive interface	isis passive-interface	11/7/2012
2.	268. priority1	priority-flow-control mode	11/7/2012
3.	365. show ip route tag	show ip route tag	8/24/2011
4.	287. router-id (OSPFv3)	router-id (OSPFv3)	7/25/2011
5.	362. show ip rip neighbors	show ip rip neighbors	8/27/2010
6.	88. [ip dhcp smart-relay global]	[ip dhcp smart-relay global]	5/12/2010
7.	212. link state track	link state track	3/18/2010
8.	364. show ip route summary	show ip route summary	3/5/2010
9.	150. ip pim bfd-instance	ip pim bfd-instance	3/1/2010
10.	149. [ip pim bfd]	[ip pim bfd]	11/11/2009
11.	410. show ptp time-property	show ptp time-property	10/12/2009
12.	271. private-vlan	ptp domain	7/23/2009
13.	502. vrrp delay reload	vrrp delay reload	7/8/2009
14.	425. show snmp source-interface	show snmp source-interface	12/1/2008
15.	272. private-vlan mapping	ptp priority1	6/25/2008
16.	273. ptp domain	ptp priority2	6/25/2008
17.	274. ptp sync interval	ptp sync interval	6/25/2008
18.	408. show ptp clock	show ptp clock	6/25/2008
19.	409. show ptp parent	show ptp parent	6/25/2008
20.	39. clear ip arp	clear ip arp	4/21/2008
21.	305. show hostname	show hostname	4/21/2008
22.	110. ip igmp startup-query- interval	ip igmp startup-query- count	2/11/2008
23.	111. ip igmp startup-query-count	ip igmp startup-query- interval	2/11/2008
24.	426. show snmp trap	show snmp trap	1/24/2008
25.	288. routing-context vrf	routing-context vrf	1/14/2008
26.	401. show policy-map interface control-plane	show policy-map interface control-plane	1/8/2008
27.	302. show environment power	show environment power	12/18/2007
28.	403. show port-channel traffic	show port-channel traffic	12/4/2007
29.	385. show lacp interface	show lacp interface	10/30/2007
30.	463. spanning-tree bridge assurance	spanning-tree bridge assurance	10/16/2007
31.	343. show ip msdp mesh-group	show ip msdp mesh-group	10/14/2007
32.	36. class-map type control-plane	class-map type control-plane	9/24/2007
33.	264. policy-map type control-plane	policy-map type control-plane	9/24/2007
34.	402. show port-channel summary	show port-channel summary	9/5/2007
35.	414. show role	show role	8/24/2007
36.	440. show user-account	show user-account	7/16/2007
37.	204. isis passive	isis passive	3/26/2007
38.	31. bgp listen limit	bgp listen limit	2/12/2007
39.	391. show mac access-list	show mac access-lists	1/17/2007
40.	265. policy-map type qos	policy-map type qos	1/4/2007
41.	430. show spanning-tree blockedports	show spanning-tree blockedports	12/11/2006
42.	431. show spanning-tree bridge	show spanning-tree bridge	12/11/2006
43.	177. ipv6 access-group	ipv6 access-group	11/20/2006
44.	411. show radius	show radius	11/14/2006
45.	146. ip ospf shutdown	ip ospf shutdown	9/19/2006
46.	226. mac access-list	mac access-list	5/16/2006
47.	2. aaa accounting dot1x	aaa accounting dot1x	3/29/2006
48.	214. lldp receive	lldp receive	2/1/2006
49.	219. lldp transmit	lldp transmit	2/1/2006
50.	367. show ipv6 bgp	show ipv6 bgp	12/22/2005
51.	48. clear lldp counters	clear lldp counters	11/16/2005
52.	49. clear lldp table	clear lldp table	11/16/2005
53.	213. lldp holdtime	lldp holdtime	11/16/2005
54.	215. lldp reinit	lldp reinit	11/16/2005
55.	216. lldp run	lldp run	11/16/2005
56.	217. lldp timer	lldp timer	11/16/2005
57.	218. lldp tlv-select	lldp tlv-select	11/16/2005
58.	388. show lldp	show lldp	11/16/2005
59.	389. show lldp neighbors	show lldp neighbors	11/16/2005
60.	390. show lldp traffic	show lldp traffic	11/16/2005
61.	13. area nssa	area nssa (OSPFv3)	11/7/2005
62.	15. area nssa default-information- originate	area nssa default-information-originate (OSPFv3)	11/7/2005
63.	20. area range	area range (OSPFv3)	11/7/2005
64.	22. area stub	area stub (OSPFv3)	11/7/2005
65.	436. show spanning-tree root	show spanning-tree root	11/2/2005
66.	209. lacp rate	lacp rate	10/18/2005
67.	314. show interfaces switchport backup	show interfaces switchport backup	8/23/2005
68.	298. show dot1x all summary	show dot1x all summary	8/4/2005
69.	237. neighbor fall-over bfd	neighbor fall-over bfd	6/10/2005
70.	119. ip msdp group-limit	ip msdp group-limit	4/29/2005
71.	148. ip pim anycast-rp	ip pim anycast-rp	4/29/2005
72.	368. show ipv6 bgp community	show ipv6 bgp community	4/29/2005
73.	369. show ipv6 bgp neighbors	show ipv6 bgp neighbors	4/29/2005
74.	370. show ipv6 bgp summary	show ipv6 bgp summary	4/29/2005
75.	382. show isis interface	show isis interface	4/29/2005
76.	476. statistics per-entry	statistics per-entry	4/29/2005
77.	497. username sshkey	username sshkey	4/29/2005
78.	473. spanning-tree transmit hold- count	spanning-tree transmit hold-count	2/18/2005

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79.	184. ipv6 nd ra suppress	ipv6 nd ra suppress	11/4/2004
80.	211. link state group	link state group	10/29/2004
81.	387. show link state group	show link state group	10/29/2004
82.	300. show environment all	show environment all	10/7/2004
83.	446. show vrf	show vrf	8/31/2004
84.	499. vrf definition	vrf definition	8/31/2004
85.	500. vrf forwarding	vrf forwarding	8/31/2004
86.	154. ip pim log-neighbor-changes	ip pim log-neighbor- changes	8/9/2004
87.	458. snmp-server source-interface	snmp-server source- interface	8/3/2004
88.	267. port-channel min-links	port-channel min-links	7/23/2004
89.	61. dot1x max-reauth-req	dot1x max-reauth-req	6/30/2004
90.	26. bfd all-interfaces	bfd all-interfaces	5/26/2004
91.	186. ipv6 nd router-preference	ipv6 nd router-preference	5/12/2004
92.	137. ip ospf bfd	ip ospf bfd	5/1/2004
93.	479. switchport backup interface	switchport backup interface	4/7/2004
94.	508. vrrp shutdown	vrrp shutdown	3/5/2004
95.	174. ipv6 dhcp relay destination	ipv6 dhcp relay destination	2/19/2004
96.	251. neighbor transport connection-mode	neighbor transport connection-mode	2/19/2004
97.	62. dot1x pae authenticator	dot1x pae authenticator	2/3/2004
98.	294. show bfd neighbors	show bfd neighbors	12/22/2003
99.	165. ip protocol	ip protocol	8/26/2003
100.	335. show ip igmp snooping groups	show ip igmp snooping groups	8/18/2003
101.	315. show interfaces transceiver	show interfaces transceiver	7/30/2003
102.	71. errdisable detect cause link-flap	errdisable detect cause link-flap	4/14/2003
103.	345. show ip msdp rpf-peer	show ip msdp rpf-peer	4/11/2003
104.	17. area nssa translate type7 always	area nssa translate type7 always	3/17/2003
105.	18. area nssa translate type7 always	area nssa translate type7 always (OSPFv3)	3/17/2003
106.	337. show ip igmp snooping querier	show ip igmp snooping querier	2/27/2003
107.	486. switchport vlan mapping	switchport vlan mapping	2/6/2003
108.	399. show policy-map control-plane	show policy-map control- plane	12/16/2002
109.	494. timers lsa arrival	timers lsa arrival	12/11/2002
110.	495. timers throttle lsa all	timers throttle lsa all	12/11/2002
111.	340. show ip mfib	show ip mfib	12/9/2002
112.	317. show inventory	show inventory	12/4/2002
113.	98. ip http client source-interface	ip http client source- interface	11/4/2002
114.	47. clear ipv6 ospf force-spf	clear ipv6 ospf force-spf	10/9/2002
115.	54. control-plane	control-plane	9/18/2002
116.	301. show environment cooling	show environment cooling	6/28/2002
117.	331. show ip helper-address	show ip helper-address	6/28/2002
118.	498. vlan internal allocation policy	vlan internal allocation policy	6/26/2002
119.	11. area default-cost	area default-cost (OSPFv3)	6/25/2002
120.	56. default-information originate (OSPFv3)	default-information originate (OSPFv3)	6/25/2002
121.	58. default-metric (OSPFv3)	default-metric (OSPFv3)	6/25/2002
122.	89. ip dhcp snooping	ip dhcp snooping	4/29/2002
123.	90. ip dhcp snooping information option	ip dhcp snooping information option	4/29/2002
124.	91. ip dhcp snooping vlan	ip dhcp snooping vlan	4/29/2002
125.	181. ipv6 nd prefix	ipv6 nd prefix	4/29/2002
126.	329. show ip dhcp snooping	show ip dhcp snooping	4/29/2002
127.	51. clear spanning-tree counters	clear spanning-tree counters	4/10/2002
128.	433. show spanning-tree mst	show spanning-tree mst	4/10/2002
129.	434. show spanning-tree mst configuration	show spanning-tree mst configuration	4/10/2002
130.	435. show spanning-tree mst interface	show spanning-tree mst interface	4/10/2002
131.	187. ipv6 neighbor	ipv6 neighbor	4/9/2002
132.	496. timers throttle spf	timers throttle spf	3/27/2002
133.	439. show track	show track	3/25/2002
134.	296. show dot1q-tunnel	show dot1q-tunnel	1/1/2002
135.	105. ip igmp snooping querier	ip igmp snooping querier	12/20/2001
136.	445. show vlan summary	show vlan summary	11/13/2001
137.	461. spanning-tree bpdufilter	spanning-tree bpdufilter	10/31/2001
138.	462. spanning-tree bpduguard	spanning-tree bpduguard	10/31/2001
139.	470. spanning-tree portfast bpdufilter default	spanning-tree portfast bpdufilter default	10/31/2001
140.	471. spanning-tree portfast bpduguard default	spanning-tree portfast bpduguard default	10/31/2001
141.	467. spanning-tree loopguard default	spanning-tree loopguard default	9/26/2001
142.	308. show interfaces capabilities	show interfaces capabilities	9/20/2001
143.	225. mac access-group	mac access-group	9/5/2001
144.	466. spanning-tree link-type	spanning-tree link-type	9/4/2001
145.	188. ipv6 ospf area	ipv6 ospf area	8/31/2001
146.	189. ipv6 ospf cost	ipv6 ospf cost	8/31/2001
147.	190. ipv6 ospf dead-interval	ipv6 ospf dead-interval	8/31/2001
148.	191. ipv6 ospf hello-interval	ipv6 ospf hello-interval	8/31/2001
149.	192. ipv6 ospf network	ipv6 ospf network	8/31/2001
150.	193. ipv6 ospf priority	ipv6 ospf priority	8/31/2001
151.	194. ipv6 ospf retransmit-interval	ipv6 ospf retransmit- interval	8/31/2001
152.	195. ipv6 ospf transmit-delay	ipv6 ospf transmit-delay	8/31/2001
153.	223. log-adjacency-changes (OSPFv3)	log-adjacency-changes (OSPFv3)	8/31/2001
154.	231. maximum-paths (OSPFv3)	maximum-paths (OSPFv3)	8/31/2001
155.	262. passive-interface (OSPFv3)	passive-interface (OSPFv3)	8/31/2001
156.	374. show ipv6 ospf border- routers	show ipv6 ospf border- routers	8/31/2001
157.	375. show ipv6 ospf interface	show ipv6 ospf interface	8/31/2001
158.	376. show ipv6 ospf neighbor	show ipv6 ospf neighbor	8/31/2001
159.	310. show interfaces flowcontrol	show interfaces flowcontrol	8/25/2001
160.	404. show port-security	show port-security	8/9/2001
161.	405. show port-security address	show port-security address	8/9/2001

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162.	406. show port-security interface	show port-security interface	8/9/2001
163.	481. switchport port-security	switchport port-security	8/9/2001
164.	482. switchport port-security maximum	switchport port-security maximum	8/9/2001
165.	469. spanning-tree mst configuration	spanning-tree mst configuration	7/23/2001
166.	477. storm-control	storm-control	7/18/2001
167.	128. ip msdp timer	ip msdp timer	7/6/2001
168.	437. show storm-control	show storm-control	7/3/2001
169.	120. ip msdp keepalive	ip msdp keepalive	6/27/2001
170.	373. show ipv6 ospf	show ipv6 ospf	6/4/2001
171.	503. vrrp description	vrrp description	6/4/2001
172.	67. dot1x timeout reauth-period	dot1x timeout reauth- period	5/24/2001
173.	299. show dot1x statistics	show dot1x statistics	5/24/2001
174.	66. dot1x timeout quiet-period	dot1x timeout quiet-period	5/22/2001
175.	68. dot1x timeout tx-period	dot1x timeout tx-period	5/22/2001
176.	63. dot1x port-control	dot1x port-control	5/21/2001
177.	64. dot1x reauthentication	dot1x reauthentication	5/21/2001
178.	65. dot1x system-auth-control	dot1x system-auth-control	5/21/2001
179.	465. spanning-tree guard	spanning-tree guard	5/16/2001
180.	208. lacp port-priority	lacp port-priority	5/7/2001
181.	210. lacp system-priority	lacp system-priority	5/7/2001
182.	266. port-channel load-balance	port-channel load-balance	5/7/2001
183.	384. show lacp counters	show lacp counters	5/7/2001
184.	386. show lacp neighbor	show lacp neighbor	5/7/2001
185.	115. ip local-proxy-arp	ip local-proxy-arp	3/13/2001
186.	126. ip msdp sa-limit	ip msdp sa-limit	1/22/2001
187.	269. priority2	private-vlan	1/16/2001
188.	270. priority-flow-control mode	private-vlan mapping	1/16/2001
189.	311. show interfaces private-vlan mapping	show interfaces private- vlan mapping	1/16/2001
190.	444. show vlan private-vlan	show vlan private-vlan	1/16/2001
191.	483. switchport private-vlan mapping	switchport private-vlan mapping	1/16/2001
192.	280. redundancy force-switchover	redundancy force- switchover	11/13/2000
193.	292. show aaa sessions	show aaa sessions	9/29/2000
194.	309. show interfaces description	show interfaces description	9/18/2000
195.	107. ip igmp snooping vlan immediate-leave	ip igmp snooping vlan immediate-leave	9/11/2000
196.	106. ip igmp snooping vlan	ip igmp snooping vlan	8/2/2000
197.	108. ip igmp snooping vlan mrouter	ip igmp snooping vlan mrouter	8/2/2000
198.	109. ip igmp snooping vlan static	ip igmp snooping vlan static	8/2/2000
199.	334. show ip igmp snooping	show ip igmp snooping	8/2/2000
200.	336. show ip igmp snooping mrouter	show ip igmp snooping mrouter	8/2/2000
201.	468. spanning-tree mode	spanning-tree mode	7/17/2000
202.	394. show mac address-table count	show mac-address-table count	7/9/2000
203.	87. ip dhcp smart-relay	ip dhcp smart-relay	6/23/2000
204.	377. show ipv6 prefix-list	show ipv6 prefix-list	6/21/2000
205.	291. show aaa method-lists	show aaa method-lists	6/12/2000
206.	447. show vrrp	show vrrp	6/9/2000
207.	501. vrrp authentication	vrrp authentication	6/9/2000
208.	504. vrrp ip	vrrp ip	6/9/2000
209.	505. vrrp ip secondary	vrrp ip secondary	6/9/2000
210.	506. vrrp preempt	vrrp preempt	6/9/2000
211.	507. vrrp priority	vrrp priority	6/9/2000
212.	509. vrrp timers advertise	vrrp timers advertise	6/9/2000
213.	297. show dot1x	show dot1x	5/20/2000
214.	94. ip extcommunity-list expanded	ip extcommunity-list expanded	3/30/2000
215.	95. ip extcommunity-list standard	ip extcommunity-list standard	3/30/2000
216.	100. ip igmp last-member-query- count	ip igmp last-member- query-count	3/30/2000
217.	135. ip ospf authentication	ip ospf authentication	3/2/2000
218.	163. ip pim ssm range	ip pim ssm range	2/24/2000
219.	432. show spanning-tree interface	show spanning-tree interface	2/24/2000
220.	182. ipv6 nd ra interval	ipv6 nd ra interval	2/4/2000
221.	183. ipv6 nd ra lifetime	ipv6 nd ra lifetime	2/4/2000
222.	196. ipv6 prefix-list	ipv6 prefix-list	2/4/2000
223.	198. ipv6 router ospf	ipv6 router ospf	2/4/2000
224.	366. show ipv6 access-list	show ipv6 access-list	2/4/2000
225.	380. show ipv6 route tag	show ipv6 route tag	2/4/2000
226.	412. show redundancy states	show redundancy states	2/2/2000
227.	72. errdisable recovery cause	errdisable recovery cause	1/13/2000
228.	73. errdisable recovery interval	errdisable recovery interval	1/13/2000
229.	60. domain-id	domain-id	12/16/1999
230.	121. ip msdp mesh-group	ip msdp mesh-group	12/13/1999
231.	151. ip pim bsr-border	ip pim bsr-border	10/13/1999
232.	304. show etherchannel	show etherchannel	10/13/1999
233.	74. flowcontrol receive	flowcontrol receive	10/11/1999
234.	75. flowcontrol send	flowcontrol send	10/11/1999
235.	396. show monitor session	show monitor session	10/4/1999
236.	233. neighbor allowwas-in	neighbor allowwas-in	9/28/1999
237.	330. show ip extcommunity-list	show ip extcommunity-list	9/22/1999
238.	157. ip pim register-source	ip pim register-source	9/9/1999
239.	153. ip pim dr-priority	ip pim dr-priority	8/4/1999
240.	224. logging host	logging host	7/20/1999
241.	5. aaa authorization console	aaa authorization console	7/15/1999
242.	395. show module	show module	7/15/1999
243.	101. ip igmp last-member-query- interval	ip igmp last-member- query-interval	5/17/1999
244.	238. neighbor local-as	neighbor local-as	4/29/1999

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245.	show interfaces status	show interfaces status	3/21/1999
316.	show interfaces trunk	show interfaces trunk	3/21/1999
247.	neighbor remote-as	neighbor remote-as	3/11/1999
248.	ip msdp description	ip msdp description	3/3/1999
127.	ip msdp shutdown	ip msdp shutdown	3/3/1999
250.	show environment temperature	show environment temperature	2/25/1999
251.	99. ip icmp redirect	ip icmp redirect	1/6/1999
252.	104. ip igmp snooping	ip igmp snooping	1/4/1999
253.	464. spanning-tree cost	spanning-tree cost	1/4/1999
254.	472. spanning-tree port-priority	spanning-tree port-priority	1/4/1999
255.	474. spanning-tree vlan	spanning-tree vlan	1/4/1999
256.	400. show policy-map interface	show policy-map interface	12/22/1998
257.	263. passive-interface default	passive-interface default	11/4/1998
258.	455. snmp-server group	snmp-server group	11/3/1998
259.	286. router-id	router-id	11/2/1998
260.	429. show spanning-tree	show spanning-tree	11/2/1998
261.	420. show snmp engineID	show snmp engineID	10/19/1998
262.	422. show snmp host	show snmp host	10/19/1998
263.	453. snmp-server engineID local	snmp-server engineID local	10/19/1998
264.	454. snmp-server engineID remote	snmp-server engineID remote	10/19/1998
265.	221. log-adjacency-changes	log-adjacency-changes	10/12/1998
266.	232. neighbor activate	neighbor activate	9/30/1998
267.	43. clear ip msdp sa-cache	clear ip msdp sa-cache	9/21/1998
268.	116. ip msdp cache-sa-state	ip msdp cache-sa-state	9/21/1998
269.	117. ip msdp default-peer	ip msdp default-peer	9/21/1998
270.	122. ip msdp originator-id	ip msdp originator-id	9/21/1998
271.	123. ip msdp peer	ip msdp peer	9/21/1998
272.	124. ip msdp sa-filter in	ip msdp sa-filter in	9/21/1998
273.	125. ip msdp sa-filter out	ip msdp sa-filter out	9/21/1998
274.	344. show ip msdp peer	show ip msdp peer	9/21/1998
275.	346. show ip msdp sa-cache	show ip msdp sa-cache	9/21/1998
276.	347. show ip msdp summary	show ip msdp summary	9/21/1998
277.	289. service sequence-numbers	service sequence-numbers	9/1/1998
278.	415. show route-map	show route-map	8/12/1998
279.	421. show snmp group	show snmp group	8/5/1998
280.	427. show snmp user	show snmp user	8/5/1998
281.	459. snmp-server user	snmp-server user	8/5/1998
282.	383. show isis topology	show isis topology	6/21/1998
283.	164. ip prefix-list	ip prefix-list	6/6/1998
284.	32. bgp log-neighbor-changes	bgp log-neighbor-changes	5/29/1998
285.	248. neighbor shutdown	neighbor shutdown	5/28/1998
286.	50. clear mac-address-table dynamic	clear mac-address-table dynamic	5/19/1998
287.	228. mac address-table static	mac-address-table aging-time	5/19/1998
288.	229. mac-address	mac-address-table static	5/19/1998
289.	392. show mac address-table	show mac-address-table	5/19/1998
290.	393. show mac address-table aging time	show mac-address-table aging-time	5/19/1998
291.	480. switchport mode	switchport mode	5/11/1998
292.	6. aaa group server radius	aaa group server radius	5/5/1998
293.	7. aaa group server tacacs+	aaa group server tacacs+	5/5/1998
294.	361. show ip rip database	show ip rip database	5/4/1998
295.	313. show interfaces switchport	show interfaces switchport	4/13/1998
296.	478. switchport access vlan	switchport access vlan	4/13/1998
297.	484. switchport trunk allowed vlan	switchport trunk allowed vlan	4/13/1998
298.	485. switchport trunk native vlan	switchport trunk native vlan	4/13/1998
299.	8. address-family	address-family	3/1/1998
300.	360. show ip prefix-list	show ip prefix-list	12/17/1997
301.	250. neighbor timers	neighbor timers	11/17/1997
302.	235. neighbor description	neighbor description	9/29/1997
303.	443. show vlan	show vlan	7/25/1997
304.	78. interface port-channel	interface port-channel	7/10/1997
305.	290. set-overload-bit	set-overload-bit	6/5/1997
306.	46. clear ipv6 neighbors	clear ipv6 neighbors	5/14/1997
307.	172. ipv6 access-list	ipv6 access-list	5/14/1997
308.	173. ipv6 address	ipv6 address	5/14/1997
309.	175. ipv6 enable	ipv6 enable	5/14/1997
310.	176. ipv6 host	ipv6 host	5/14/1997
311.	178. ipv6 nd managed-config-flag	ipv6 nd managed-config-flag	5/14/1997
312.	179. ipv6 nd ns-interval	ipv6 nd ns-interval	5/14/1997
313.	180. ipv6 nd other-config-flag	ipv6 nd other-config-flag	5/14/1997
314.	185. ipv6 nd reachable-time	ipv6 nd reachable-time	5/14/1997
315.	197. ipv6 route	ipv6 route	5/14/1997
316.	199. ipv6 unicast-routing	ipv6 unicast-routing	5/14/1997
317.	371. show ipv6 interface	show ipv6 interface	5/14/1997
318.	372. show ipv6 neighbors	show ipv6 neighbors	5/14/1997
319.	378. show ipv6 route	show ipv6 route	5/14/1997
320.	379. show ipv6 route summary	show ipv6 route summary	5/14/1997
321.	152. ip pim bsr-candidate	ip pim bsr-candidate	4/3/1997
322.	159. ip pim rp-candidate	ip pim rp-candidate	4/3/1997
323.	359. show ip pim rp-hash	show ip pim rp-hash	4/3/1997
324.	418. show snmp community	show snmp community	3/12/1997
325.	155. ip pim neighbor-filter	ip pim neighbor-filter	1/22/1997
326.	112. ip igmp static-group	ip igmp static-group	1/19/1997
327.	79. interface vlan	interface vlan	1/15/1997

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328.	4.	aaa authorization config- commands	aaa authorization config- commands	12/10/1996
329.	417.	show snmp chassis	show snmp chassis	12/6/1996
330.	419.	show snmp contact	show snmp contact	12/6/1996
331.	423.	show snmp location	show snmp location	12/6/1996
332.	81.	ip access-list	ip access-list	10/1/1996
333.	82.	ip access-list standard	ip access-list standard	10/1/1996
334.	249.	neighbor soft-reconfiguration	neighbor soft- reconfiguration	10/1/1996
335.	16.	area nssa no-summary	area nssa no-summary	9/16/1996
336.	244.	neighbor remove-private-as	neighbor remove-private- as	7/30/1996
337.	275.	radius-server deadtime	radius-server deadtime	6/3/1996
338.	202.	isis lsp-interval	isis lsp-interval	5/7/1996
339.	44.	clear ip nat translation	clear ip nat translation	4/9/1996
340.	132.	ip nat pool	ip nat pool	4/9/1996
341.	133.	ip nat translation tcp-timeout	ip nat translation tcp- timeout	4/9/1996
342.	134.	ip nat translation udp-timeout	ip nat translation udp- timeout	4/9/1996
343.	348.	show ip nat translations	show ip nat translations	4/9/1996
344.	12.	area nssa	area nssa	4/5/1996
345.	14.	area nssa default- information- originate	area nssa default- information-originate	4/5/1996
346.	45.	clear ip ospf neighbor	clear ip ospf neighbor	3/1/1996
347.	103.	ip igmp query-max-response- time	ip igmp query-max- response-time	3/1/1996
348.	113.	ip igmp version	ip igmp version	3/1/1996
349.	129.	ip multicast boundary	ip multicast boundary	3/1/1996
350.	80.	ip access-group	ip access-group	2/28/1996
351.	438.	show tacacs	show tacacs	2/9/1996
352.	488.	tacacs-server key	tacacs-server key	2/1/1996
353.	114.	ip load-sharing	ip load-sharing	1/19/1996
354.	167.	ip radius source-interface	ip radius source-interface	1/1/1996
355.	161.	ip pim spt-threshold	ip pim spt-threshold	12/17/1995
356.	162.	ip pim spt-threshold group-list	ip pim spt-threshold group-list	12/17/1995
357.	171.	ip tacacs source-interface	ip tacacs source-interface	12/8/1995
358.	168.	ip rip v2-broadcast	ip rip v2-broadcast	12/2/1995
359.	413.	show reload	show reload	9/24/1995
360.	222.	log-adjacency-changes (IS- IS)	log-adjacency-changes (IS-IS)	8/25/1995
361.	201.	isis hello-multiplier	isis hello-multiplier	8/3/1995
362.	27.	bgp client-to-client reflection	bgp client-to-client reflection	7/12/1995
363.	234.	neighbor default-originate	neighbor default-originate	7/7/1995
364.	428.	show snmp view	show snmp view	7/4/1995
365.	141.	ip ospf message-digest-key	ip ospf message-digest- key	7/1/1995
366.	142.	ip ospf name-lookup	ip ospf name-lookup	7/1/1995
367.	230.	maximum-paths	maximum-paths	7/1/1995
368.	240.	neighbor password	neighbor password	7/1/1995
369.	241.	neighbor peer-group (assigning members)	neighbor peer-group (assigning members)	7/1/1995
370.	242.	neighbor peer-group (creating)	neighbor peer-group (creating)	7/1/1995
371.	246.	neighbor route-reflector- client	neighbor route-reflector- client	7/1/1995
372.	325.	show ip bgp peer-group	show ip bgp peer-group	7/1/1995
373.	328.	show ip community-list	show ip community-list	7/1/1995
374.	28.	bgp cluster-id	bgp cluster-id	6/30/1995
375.	276.	radius-server host	radius-server host	5/4/1995
376.	277.	radius-server key	radius-server key	5/4/1995
377.	278.	radius-server retransmit	radius-server retransmit	5/4/1995
378.	279.	radius-server timeout	radius-server timeout	5/4/1995
379.	85.	ip community-list expanded	ip community-list expanded	4/13/1995
380.	86.	ip community-list standard	ip community-list standard	4/13/1995
381.	318.	show ip access-lists	show ip access-lists	4/13/1995
382.	69.	enable secret	enable secret	3/6/1995
383.	247.	neighbor send-community	neighbor send-community	3/1/1995
384.	29.	bgp confederation identifier	bgp confederation identifier	2/16/1995
385.	30.	bgp confederation peers	bgp confederation peers	2/16/1995
386.	70.	erase startup-config	erase startup config	1/11/1995
387.	321.	show ip bgp community	show ip bgp community	12/16/1994
388.	407.	show privilege	show privilege	12/16/1994
389.	452.	snmp-server enable traps	snmp-server enable traps	11/29/1994
390.	475.	spf-interval	spf-interval	11/23/1994
391.	1.	aaa accounting	aaa accounting	11/15/1994
392.	3.	aaa authentication login	aaa authentication login	11/15/1994
393.	354.	show ip ospf request-list	show ip ospf request-list	11/12/1994
394.	351.	show ip ospf database database- summary	show ip ospf database database-summary	11/11/1994
395.	355.	show ip ospf retransmission- list	show ip ospf retransmission-list	11/11/1994
396.	158.	ip pim rp-address	ip pim rp-address	10/4/1994
397.	220.	load interval	load-interval	8/17/1994
398.	460.	snmp-server view	snmp-server view	8/8/1994
399.	130.	ip multicast-routing	ip multicast-routing	7/9/1994
400.	332.	show ip igmp groups	show ip igmp groups	7/9/1994
401.	333.	show ip igmp interface	show ip igmp interface	7/9/1994
402.	341.	show ip mroute	show ip mroute	7/9/1994
403.	342.	show ip mroute count	show ip mroute count	7/9/1994
404.	356.	show ip pim interface	show ip pim interface	7/9/1994
405.	357.	show ip pim neighbor	show ip pim neighbor	7/9/1994
406.	358.	show ip pim rp	show ip pim rp	7/9/1994
407.	102.	ip igmp query-interval	ip igmp query-interval	6/24/1994
408.	156.	ip pim query-interval	ip pim query-interval	6/24/1994
409.	160.	ip pim sparse-mode	ip pim sparse-mode	6/24/1994
410.	35.	channel-group	channel-group	3/11/1994

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411.	33.	bgp redistribute-internal	bgp redistribute internal	3/9/1994	
412.	52.	clock set	clock set	1/15/1994	
413.	53.	clock timezone	clock timezone	1/15/1994	
414.	23.	arp timeout	arp timeout	12/31/1993	**
415.	24.	banner login	banner login	12/31/1993	**
416.	25.	banner motd	banner motd	12/31/1993	**
417.	38.	clear counters	clear counters	12/31/1993	**
418.	40.	clear ip bgp	clear ip bgp	12/31/1993	**
419.	41.	clear ip igmp group	clear ip igmp group	12/31/1993	**
420.	42.	clear ip mroute	clear ip mroute	12/31/1993	**
421.	59.	distance bgp	distance bgp	12/31/1993	**
422.	77.	interface loopback	interface loopback	12/31/1993	**
423.	92.	ip domain lookup	ip domain lookup	12/31/1993	**
424.	93.	ip domain name	ip domain-name	12/31/1993	**
425.	254.	network area	network area	12/31/1993	**
426.	320.	show ip bgp	show ip bgp	12/31/1993	**
427.	493.	timers bgp	timers bgp	12/31/1993	**
428.	9.	aggregate-address	aggregate-address	12/2/1993	
429.	256.	ntp authenticate	ntp authenticate	12/1/1993	
430.	257.	ntp authentication-key	ntp authentication-key	12/1/1993	
431.	260.	ntp trusted-key	ntp trusted-key	12/1/1993	
432.	350.	show ip ospf border-routers	show ip ospf border- routers	11/23/1993	
433.	448.	snmp trap link-status	snmp trap link-status	11/11/1993	
434.	339.	show ip interface brief	show ip interface brief	10/31/1993	
435.	84.	ip as-path access-list	ip as-path access-list	10/7/1993	
436.	258.	ntp server	ntp server	10/7/1993	
437.	239.	neighbor next-hop-self	neighbor next-hop-self	9/24/1993	
438.	259.	ntp source	ntp source	8/5/1993	
439.	424.	show snmp mib	show snmp mib	7/22/1993	
440.	143.	ip ospf network	ip ospf network	5/10/1993	
441.	326.	show ip bgp regexp	show ip bgp regexp	5/10/1993	
442.	349.	show ip ospf	show ip ospf	5/10/1993	
443.	352.	show ip ospf interface	show ip ospf interface	5/10/1993	
444.	353.	show ip ospf neighbor	show ip ospf neighbor	5/10/1993	
445.	236.	neighbor ebgp-multipath	neighbor ebgp-multipath	4/16/1993	
446.	295.	show clock	show clock	3/13/1993	
447.	449.	snmp-server chassis-id	snmp-server chassis-id	2/28/1993	
448.	245.	neighbor route-map	neighbor route-map	1/27/1993	
449.	281.	route-map	route-map	1/27/1993	
450.	398.	show ntp status	show ntp status	1/9/1993	
451.	397.	show ntp associations	show ntp associations	12/29/1992	
452.	319.	show ip arp	show ip arp	12/1/1992	
453.	442.	show version	show version	12/1/1992	
454.	416.	show snmp	show snmp	8/4/1992	
455.	19.	area range	area range	6/14/1992	
456.	21.	area stub	area stub	6/14/1992	
457.	207.	is-type	is-type	6/14/1992	
458.	381.	show isis database	show isis database	6/14/1992	
459.	451.	snmp-server contact	snmp-server contact	6/14/1992	
460.	457.	snmp-server location	snmp-server location	6/14/1992	
461.	55.	default-information originate (OSPF)	default-information originate (OSPF)	3/27/1992	
462.	10.	area default-cost	area default-cost	3/9/1992	
463.	200.	isis hello-interval	isis hello-interval	3/9/1992	
464.	203.	isis metric	isis metric	3/9/1992	
465.	206.	isis priority	isis priority	3/9/1992	
466.	252.	neighbor update-source	neighbor update-source	3/9/1992	
467.	283.	router isis	router isis	3/9/1992	
468.	284.	router ospf	router ospf	3/9/1992	
469.	322.	show ip bgp neighbors	show ip bgp neighbors	3/9/1992	
470.	323.	show ip bgp neighbors	show ip bgp neighbors	3/9/1992	
471.	324.	show ip bgp paths	show ip bgp paths	3/9/1992	
472.	327.	show ip bgp summary	show ip bgp summary	3/9/1992	
473.	136.	ip ospf authentication-key	ip ospf authentication-key	3/3/1992	
474.	138.	ip ospf cost	ip ospf cost	3/3/1992	
475.	139.	ip ospf dead-interval	ip ospf dead-interval	3/3/1992	
476.	140.	ip ospf hello-interval	ip ospf hello-interval	3/3/1992	
477.	144.	ip ospf priority	ip ospf priority	3/3/1992	
478.	145.	ip ospf retransmit-interval	ip ospf retransmit-interval	3/3/1992	
479.	147.	ip ospf transmit-delay	ip ospf transmit-delay	3/3/1992	
480.	227.	mac address-table aging-time	mac-address	2/11/1990	
481.	97.	ip host	ip host	11/7/1989	
482.	131.	ip name-server	ip name-server	9/14/1989	
483.	166.	ip proxy-arp	ip proxy-arp	9/14/1989	
484.	169.	ip route	ip route	9/14/1989	
485.	253.	neighbor weight	neighbor weight	9/14/1989	
486.	282.	router bgp	router bgp	9/14/1989	
487.	489.	tacacs-server timeout	tacacs-server timeout	9/14/1989	
488.	492.	timers basic (RIP)	timers basic (RIP)	9/14/1989	
489.	83.	ip address	ip address	4/24/1989	
490.	96.	ip helper-address	ip helper-address	4/24/1989	
491.	170.	ip routing	ip routing	4/24/1989	
492.	255.	no snmp-server	no snmp-server	4/24/1989	
493.	261.	passive-interface	passive-interface	4/24/1989	

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494.	338. show ip interface	show ip interface	4/24/1989
495.	363. show ip route	show ip route	4/24/1989
496.	450. snmp-server community	snmp-server community	4/24/1989
497.	456. snmp-server host	snmp-server host	4/24/1989
498.	487. tacacs-server host	tacacs-server host	4/24/1989
499.	491. terminal monitor	terminal monitor	1/10/1988
500.	285. router rip	router rip	9/19/1987
501.	76. interface ethernet	interface ethernet	4/9/1987
502.	34. boot system	boot system	3/12/1987
503.	37. clear arp-cache	clear arp-cache	7/20/1986
504.	293. show arp	show arp	7/20/1986
505.	306. show hosts	show hosts	7/20/1986
506.	307. show interfaces	show interfaces	7/20/1986
507.	441. show users	show users	7/20/1986
508.	490. terminal length	terminal length	7/20/1986

* The numbering corresponds to the numbering shown on Exhibit Copying-2 to the Almeroth Opening Report
** Exhibit F to Cisco's Interrogatory Responses identified only "1993" for these command abstractions.